USACE Levee Safety Program

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May 2008

Topics

- **Historic Overview**
- **Program Overview**
- **National Levee Inventory**
- **Inspections and Assessments**
- **National Levee Safety Act 2007**
- **Key Activities**

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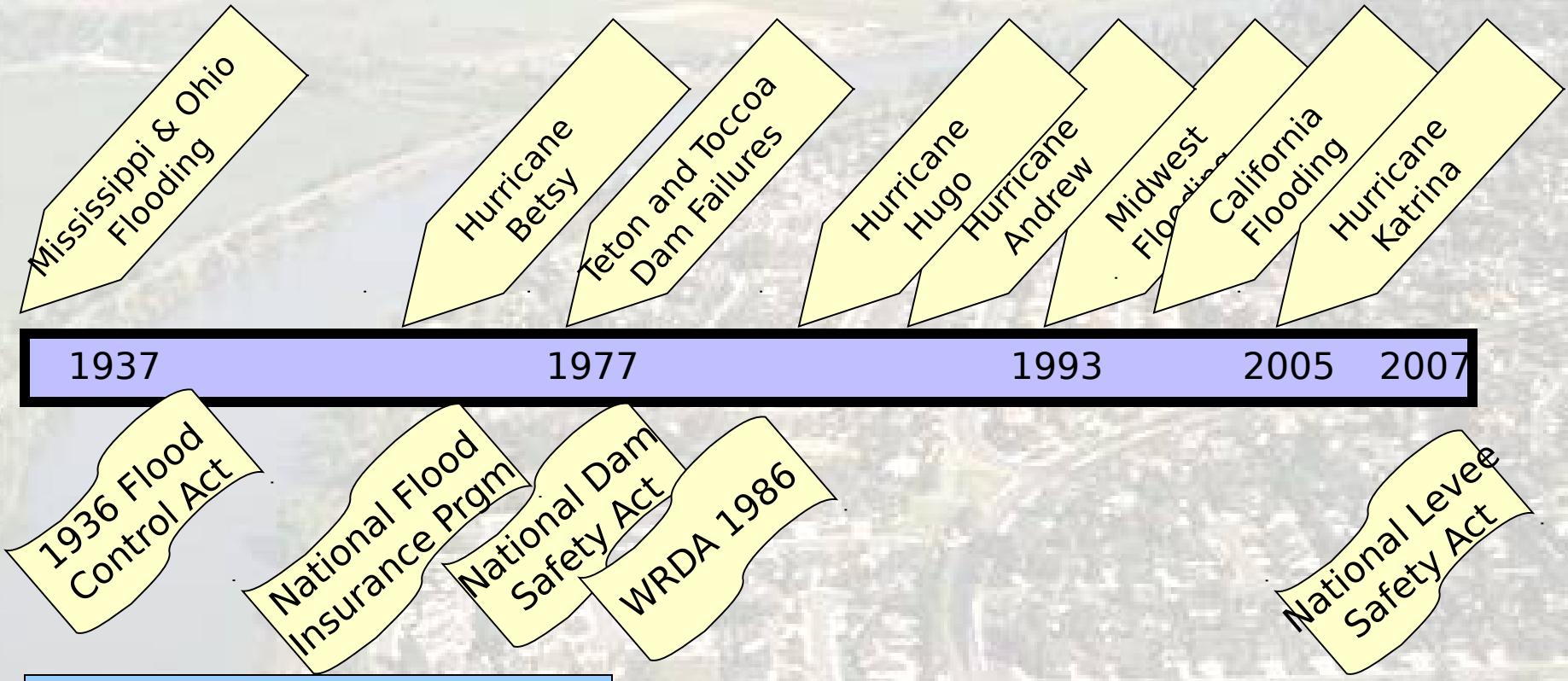
Historic Perspective



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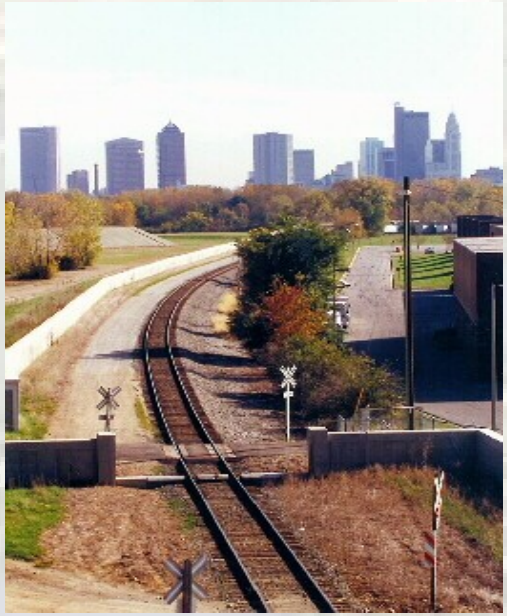
Levee Safety Program Mission



West Columbus, Ohio

Assess the integrity and viability of levees and recommend actions to assure that levee systems do not present unacceptable risks to the public, property, and the environment.

Program Objectives:

- **Hold Public Safety Paramount**
- **Reduced Economic Impacts**
- **Maximize Cost Effectiveness**
- **Develop Reliable and Accurate Information**
- **Build Public Trust and Acceptance**

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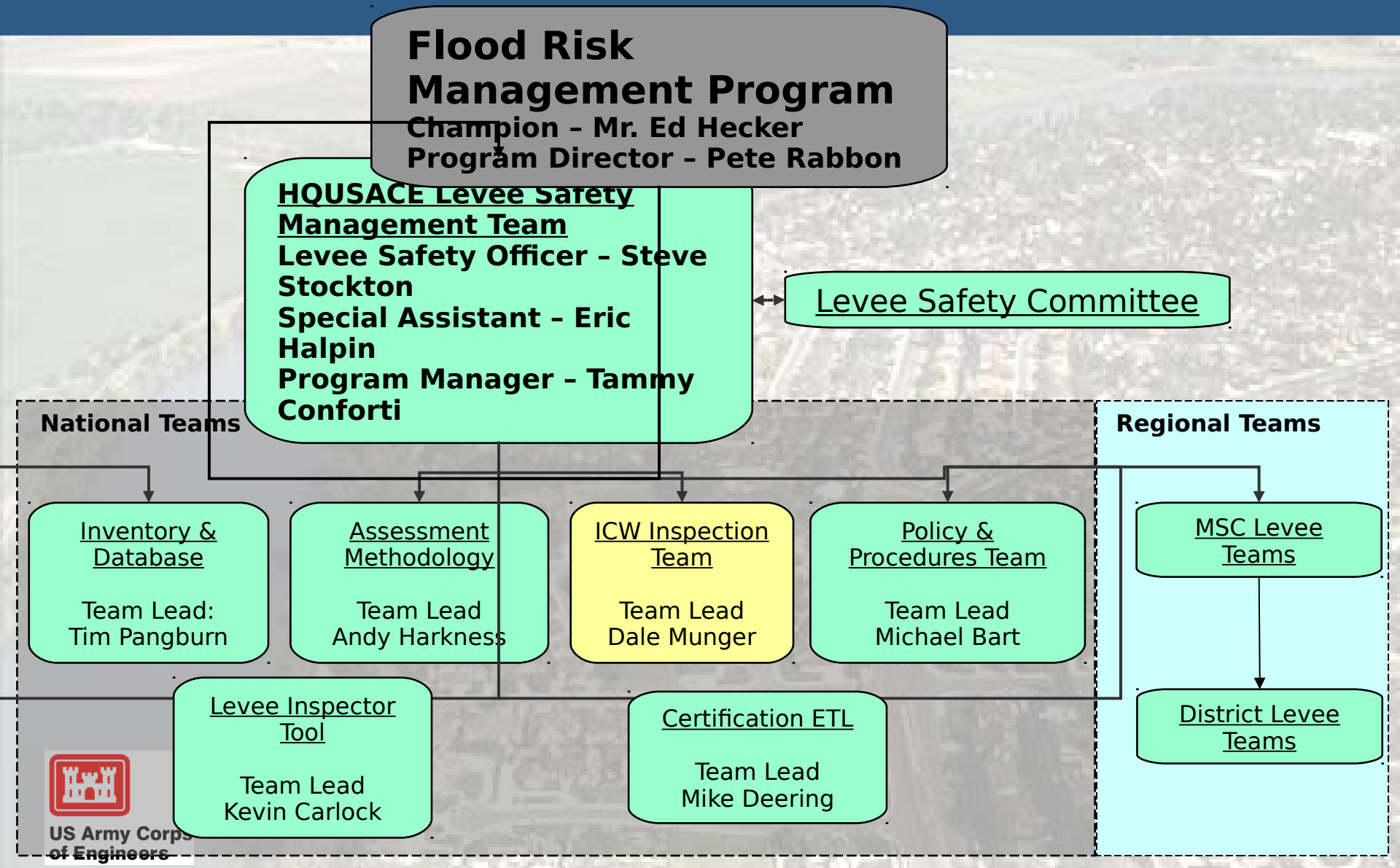
Levee Safety Program Organization



Implementation Guidance

- **Issued to field in November**
- **Establish Levee Safety Officers**
- **Establish Levee Safety Program Managers**
- **Submit plans for organizational structure**
- **Use revised inspection checklist**
- **Describes the different tiers of inspections**
- **Provides guidance for inspection intervals**
- **Announces training for the inspection tool**
- **Informs of future NFRMP guidance**

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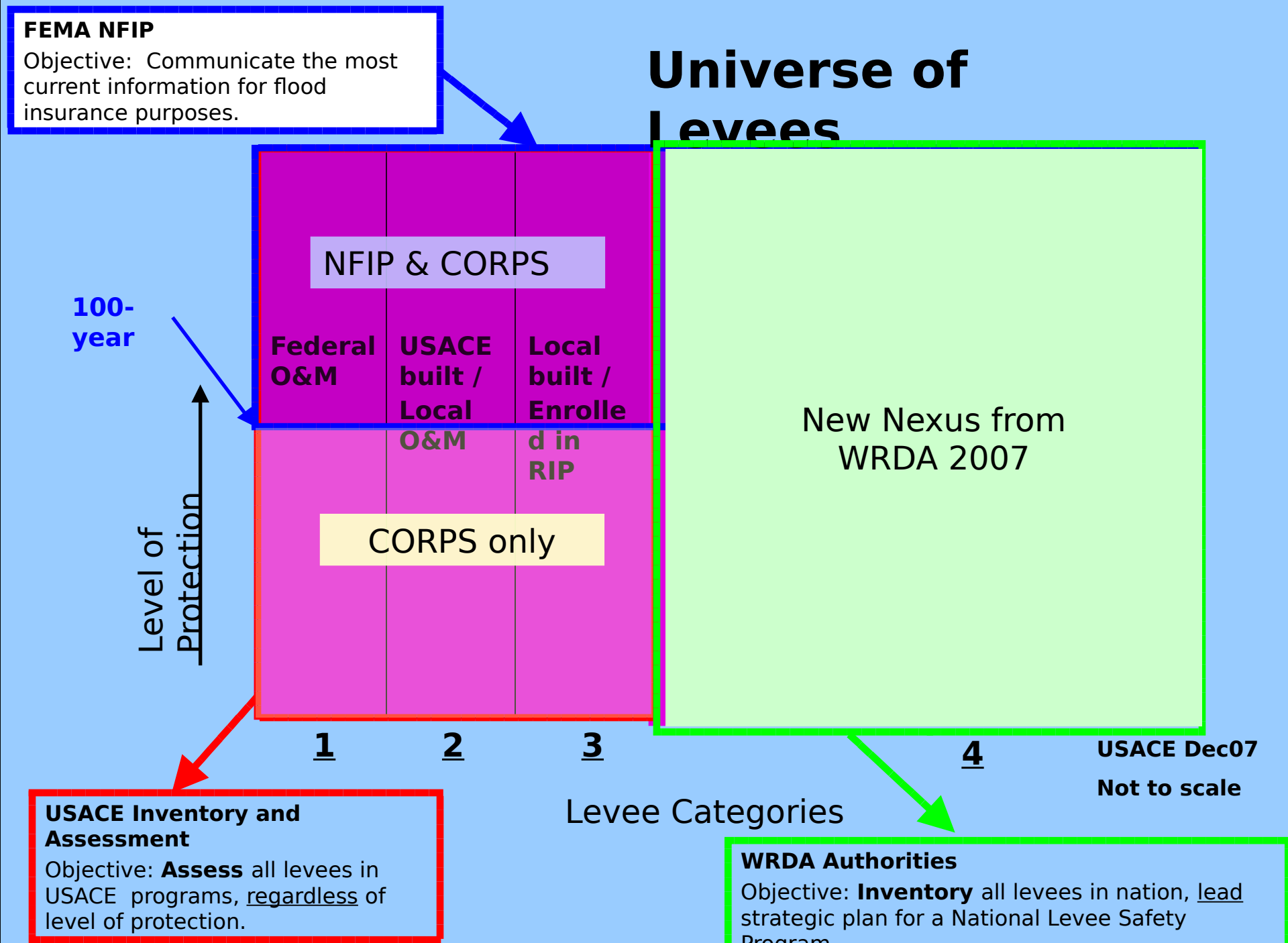
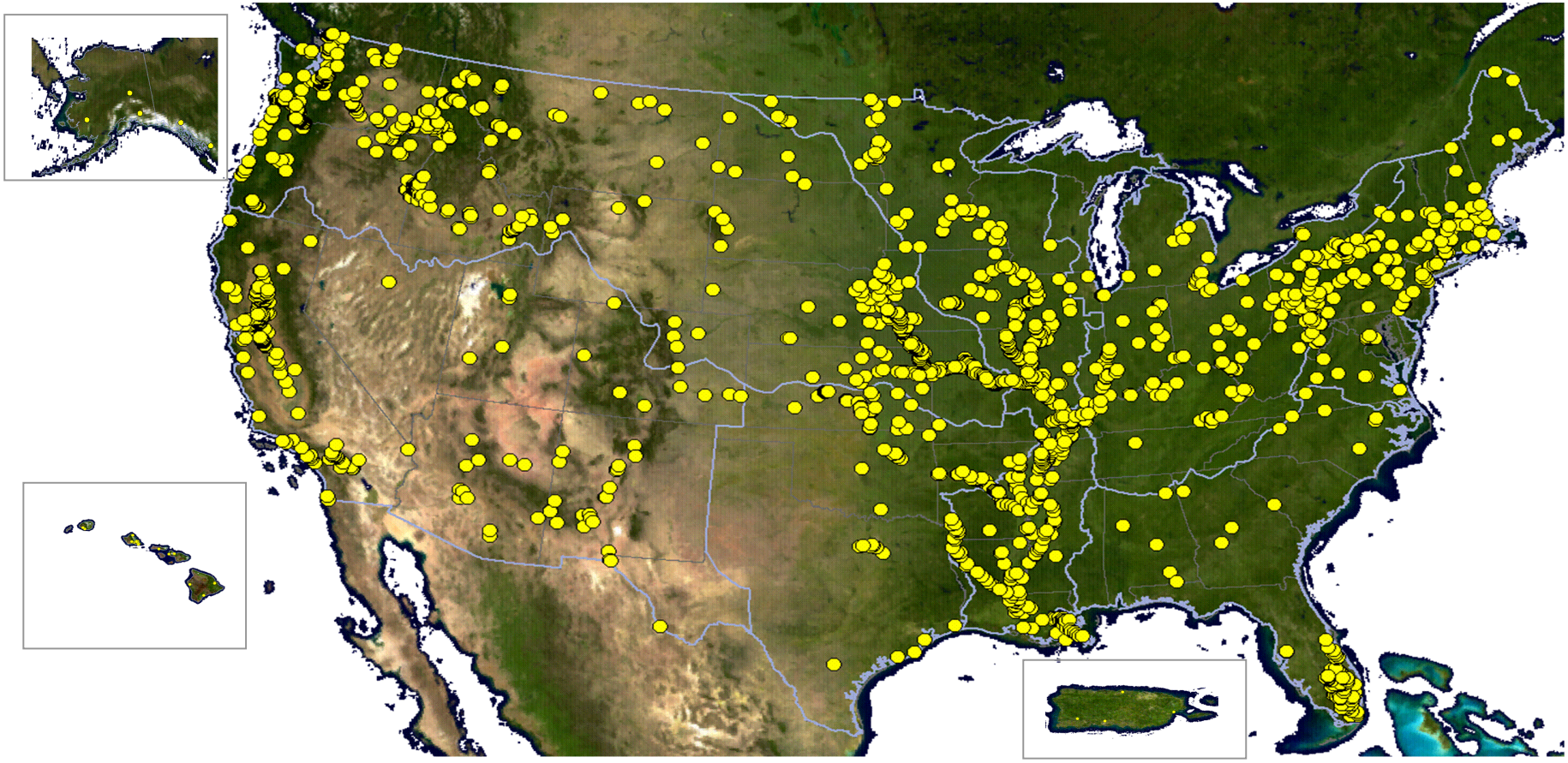

FEMA NFIP
Objective: Communicate the most current information for flood insurance purposes.
Universe of Levees
NFIP & CORPS
100-year
Federal O&M
USACE built / Local O&M
Local built / Enrolled in RIP
CORPS only
New Nexus from WRDA 2007
Level of Protection
1
2
3
4
USACE Dec07
Not to scale
Levee Categories
USACE Inventory and Assessment
Objective: Assess all levees in USACE programs, regardless of level of protection.
WRDA Authorities
Objective: Inventory all levees in nation, lead strategic plan for a National Levee Safety Program

Location of Corps Levees



Levee Inspection Program

Routine Inspection: Verifies proper operation & maintenance activities conducted by the public sponsor.

Periodic Inspection: Verifies proper operation and maintenance and evaluates structure's operational adequacy, structural stability and identifies components and features that the sponsor needs to monitor over time.

Periodic Assessment: Combination of PI and potential failure mode and consequences analysis used for initial screening and prioritization of RA.

Risk Assessment: Process of identifying the likelihood and consequences of levee failure to provide the basis for informed decisions on a course of action.

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Risk Assessment Outcomes

- **Levee Safety Action Classification**
- **Consequences**
  - **Relative Annualized Loss of Life**
  - **Relative Economic Damage**
  - **Others, environmental, etc**
- **Component Risk – What is driving risk**
- **Information on data quality and gaps**
- **Issues that influence certification**
- **Documentation of confirmed failure modes**
- **Recommended risk management actions**

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FY 2008 Inspection Program Priority Activities

- **Complete I-Wall Evaluations**
- **Routine Inspections**
- **Automated Inspection Tool Training**
- **Vertical Datum Evaluations**
- **Coordination with FEMA on PALs**
- **Other Activities – HQUSACE Approval**
- **No inspection funds will be allocated to perform certifications**

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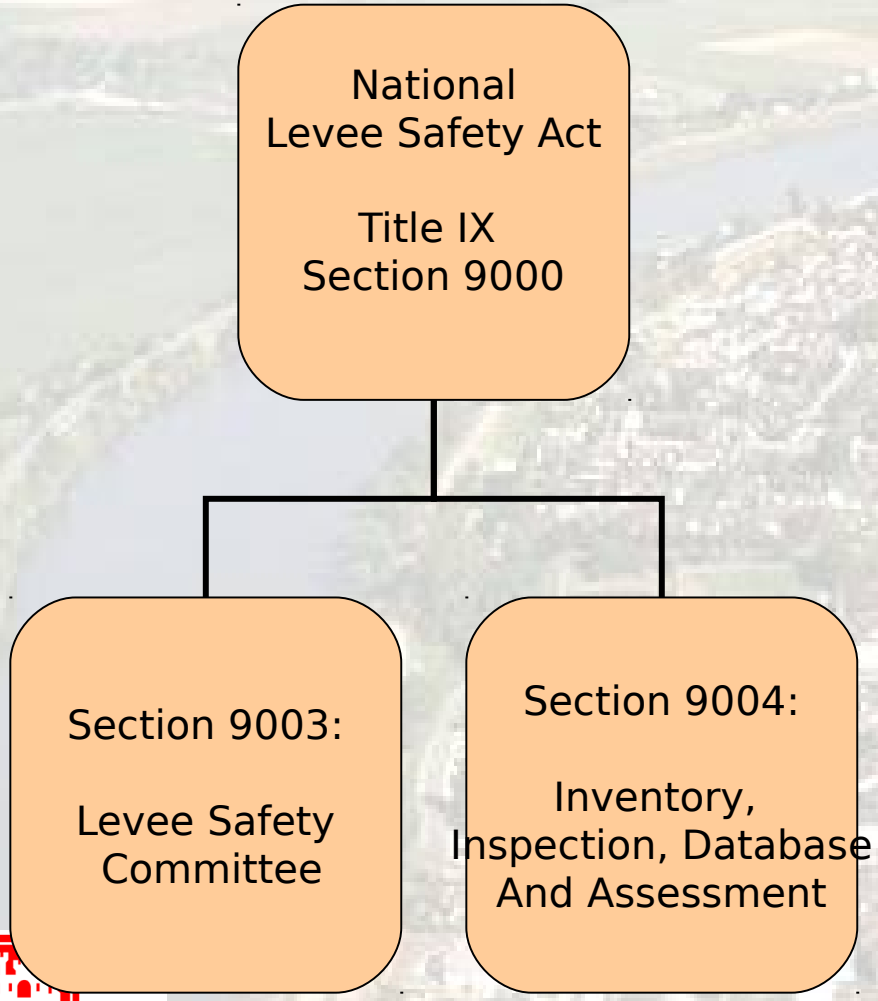
Background on WRDA 2007 National Levee Safety Act



Complements Existing Activities & Authorities

Two Major Components:

- **A Strategic Plan, Not a Program**
- **Safety Data Collection**

"One Time" Nature

Levees Include:

- **Hurricane, Storm & Flood**
- **Structures:**
  - **Earthen embankments**
  - **Floodwalls**
  - **Structures along canals**

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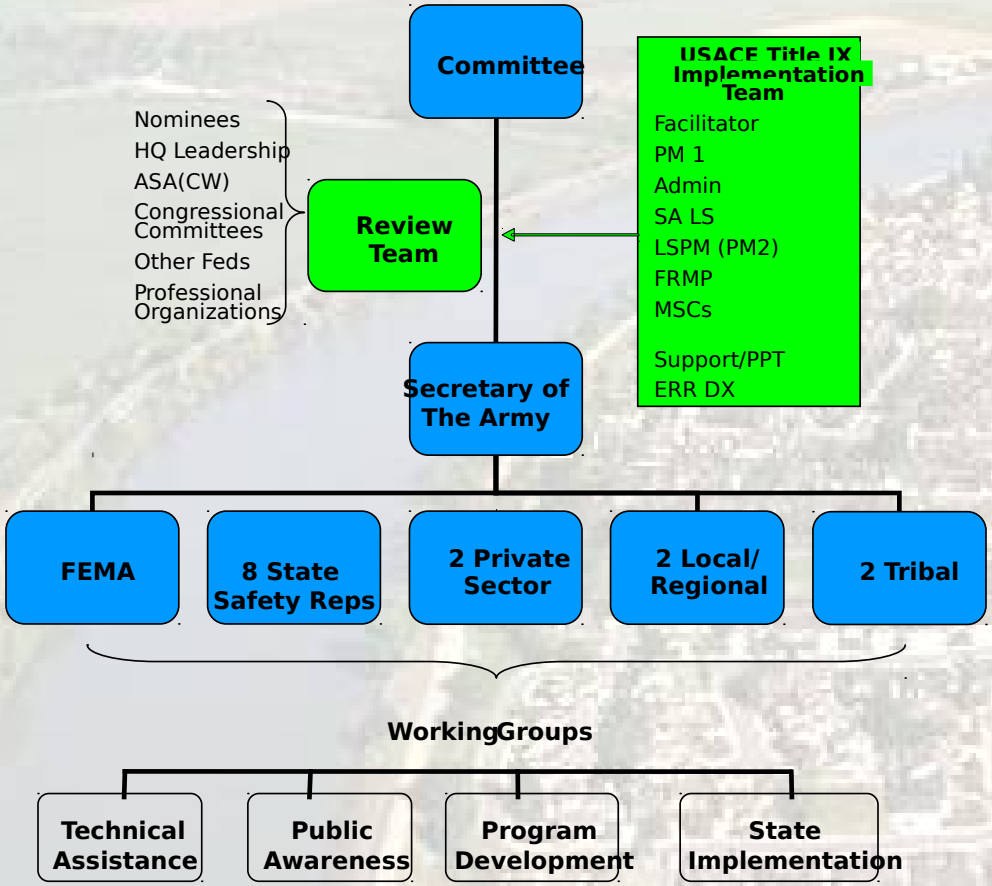
National Levee Safety Committee
Section 9003



- **180 day schedule to develop a strategic implementation plan on 9 specific goals**
- **16 person committee**
- **Supported by USACE**
- **Review group**
- **Organized into working groups**

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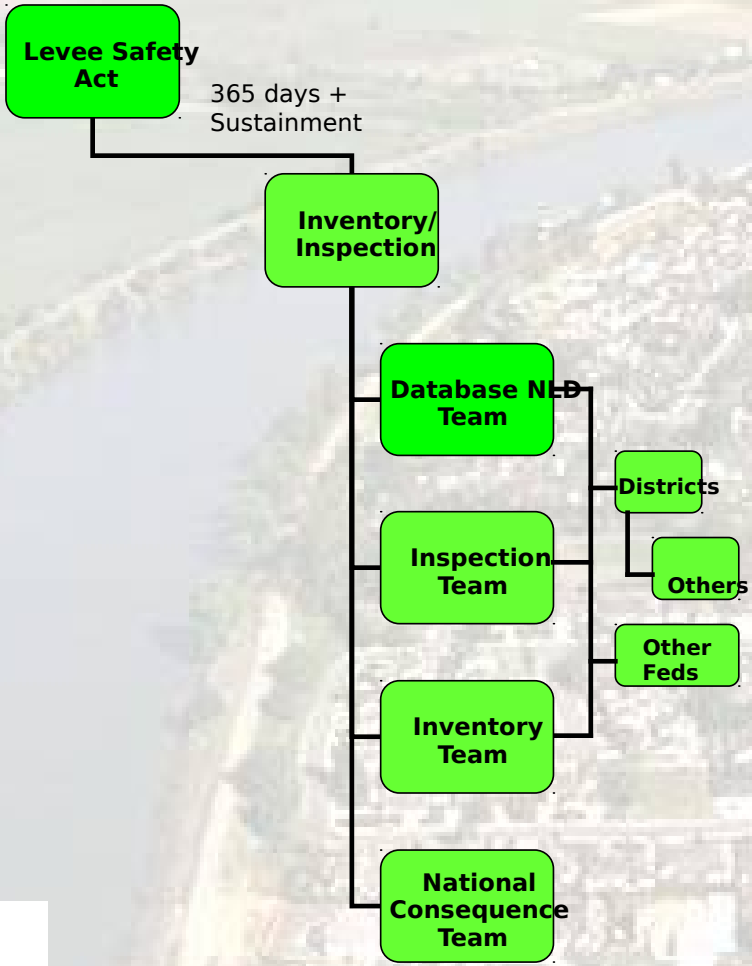
Inventory & Inspection Section 9004



- **Implemented by USACE as a continuation of FY06 supplemental**
- **Inventory, inspection, & consequence assessment: "one time"**
- **Database management continuing requirement**
- **Addresses security**
- **Less urgent, but much larger half of the act**
- **Report due in 12 Months**

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Challenges & Issues

- **WRDA Authorization: $20M for 6 years**
  - **98% for Section 9004**
  - **Appropriations:**
    - **FY08 – none in budget line item**
    - **FY09 - ?**
- **Other Federal Agency Impact**
- **Cost Sharing Authorities for Section 9004**
- **FACA Does Not Apply to Section 9003**
- **Nominations from ASFPM, NAFSMA, and ASDSO received**

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Program Activities

Program/Activity (start date)	Schedule
National Levee Database (2006)	**On-going**
Robust Routine Inspections (2007)	**Annually**
Screening Risk Assessments (2008)	**One Time**
Periodic Inspections (2009)	**Every 5 Years**
Periodic Risk Assessments (2010)	**Every 10 Years**
Levee Certification Guidance (2007)	**Every 10 Years**
Levee Safety Policy and Procedures Team (2007)	**On-going**

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Flood Risk Management Program Website

http://www.iwr.usace.army.mil/nfrmp/

National Flood Risk Management Program - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://www.iwr.usace.army.mil/nfrmp/
NATIONAL FLOOD RISK MANAGEMENT PROGRAM
US Army Corps of Engineers
FEMA
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Current Issues and Topics in the News
Learn More about the National Flood Risk Management Program
Guidance and Policy
Regional Coordination Activities
Frequently Asked Questions
Presentations, Talking Points and Fact Sheets
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The U.S. Government's official web portal
The U.S. Army Corps of Engineers (USACE) established the National Flood Risk Management Program in May 2006 for the purpose of integrating and synchronizing USACE flood risk management programs and activities, both internally and with counterpart activities of the Department of Homeland Security, Federal Emergency Management Agency (FEMA), other Federal agencies, state organizations and regional and local agencies.
Some of the specific goals of the National Flood Risk Management Program include:
Providing current and accurate floodplain information to the public and decision makers,
Identifying and assessing flood hazards posed by aging flood damage reduction infrastructure,
Improving public awareness and comprehension of flood hazards and risk,
Integrating flood damage and flood hazard reduction programs across local, state, and Federal agencies, and
Improving capabilities to collaboratively deliver and sustain flood damage reduction and flood hazard mitigation services to the nation.
On this web site you will find more information about the vision and mission of the Program under Learn more about the National Flood Risk Management Program. Guidance and Policy provides access to existing and newly released policy and guidance relating to levee certification, inspections and other flood risk management related matters. Frequently Asked Questions page answers many questions pertaining to the guidance and policies posted on the Guidance and Policy page. Current Issues and Topics in the News describes current events and provides access to media stories pertinent to flood risk management. Proceedings from periodic meetings involving USACE districts and FEMA regions around the country can be found under Regional Coordination Activities. Presentations, Talking Points and Fact Sheets provides quick access to all the presentations, talking points and fact sheets found throughout the site.
Internet

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